

## CLAIMS

1. A method for diagnosing an individual as being asthmatic, or as having a predisposition to asthma, which method comprises demonstrating in  
5 the individual the presence or absence of one or more alleles which are associated with asthma, wherein the one or more alleles are situated at a locus in a region of chromosome 4 of up to 1 megabase in length, which region contains the locus D4S3032 and/or D4S2921.
2. The method according to claim 1, wherein the method comprises  
10 the steps of:
- (i) obtaining a suitable tissue sample from the individual;
  - (ii) preparing from the tissue sample a nucleic acid sample;
  - (iii) analysing the nucleic acid sample for the presence or absence of the allele.
- 15 3. The method according to claim 2, wherein prior to analysis, the locus at which the or each allele is situated is amplified.
4. The method according to claim 3, wherein the amplification is by the PCR.
5. The method according to any one of claims 1 to 4, wherein the  
20 locus at which the or each allele is situated comprises microsatellite repeats of variable length.
6. The method according to claim 3 or claim 4, wherein the amplification is performed using a pair of primers for each allele, wherein each primer in a pair hybridises under suitably stringent conditions to a region either  
25 side of the microsatellite repeats.
7. The method according to any one of claims 1 to 6, wherein the allele for identification is D4S3032\*5.

8. The method according to any one of claims 1 to 6, wherein the allele for identification is D4S2921\*13.

9. The method according to any one of claims 1 to 6, wherein the alleles for identification are D4S3032\*5 and D4S2921\*13.

10. The method according to any one of claims 3 to 9, wherein the analysis is carried out by size separation of amplification products.

11. The method according to claim 10, wherein the primers in the pair of primers comprise the oligonucleotide sequences identified by SEQ ID NO: 1 and SEQ ID NO: 2 or substantially similar sequences, for D4S3032\*5; or identified by SEQ ID NO: 3 and SEQ ID NO: 4 or substantially similar sequences, for D4S2921\*13; or both of the aforementioned pairs of primers for both of the aforementioned alleles.

12. A pair of oligonucleotide primers for amplification of an allele which is associated with asthma, which allele is situated at a locus in a region of chromosome 2 of up to 1 megabase in length, which region contains the locus D4S3032 and/or D4S2921.

13. The pair of oligonucleotide primers according to claim 12, one of which is labeled with a detectable marker.

14. The pair of oligonucleotides according to claim 12 or claim 13, capable of hybridising under suitably stringent conditions to a region either side of a region of microsatellite repeats at D4S3032 or D4S2921.

15. The pair of oligonucleotide primers according to claim 14, comprising the oligonucleotide sequences identified by SEQ ID NO:1 and SEQ ID NO:2 or substantially similar sequences, for D4S3032\*5; or the oligonucleotide sequences identified by SEQ ID NO: 3 and SEQ ID NO:4 or substantially similar sequences, for D4S2921\*13.

16. An assay kit which comprises the pair of oligonucleotide primers according to any one of claims 12 to 15.